

A NEW GENUS STOMATANTHES

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The Eupatorieae are a group primarily of the western hemisphere. Only three of the described genera, Eupatorium, Mikania, Adenostemma are believed to be native in the eastern hemisphere, but most of the species of these genera are in the west. It now appears that buried in the genus Eupatorium is a species which represents the only eupatorian genus endemic to the eastern hemisphere.

Stomatantes africanus is most distinctive in the possession of numerous stomates on the backs of the corolla lobes. From Eupatorium it also differs by the highly ornate walls in the cells of the anther collar, by the numerous hairs on the outer surface of the corolla lobes, the numerous setae on the achene, by the very distinct carpodium, by the primarily alternate leaves, by the smaller number of flowers and phyllaries, and the subacute apical cells of the pappus setae. Other genera with which it might be compared include Eupatoriadelphus which differs by whorled leaves, inornate anther collars, few or no hairs or setae on the corolla or achene, an enlarged stylar node, and the larger number of flowers and phyllaries; Austroeupatorium which has ornate anther collars and distinct carpodia but is otherwise most like Eupatorium; and Campuloclinium which has opposite leaves, an enlarged stylar node, no stomates on the corolla lobes, more papillose corolla lobes and smoother style branches. After evaluating the distinction of Stomatantes, we would relate it to that series of the Eupatorieae which we refer to as Eupatorioid as contrasted with Ageratioid, Campuloclinioid or Critonioid.

Stomatantes africanus seems to occur in two forms, plants with four phyllaries and four flowers and plants with five phyllaries and five flowers. Plants seem rather consistent in this distinction. The heads of plants with four phyllaries and four flowers show a superficial resemblance to those of the genus Mikania.

The stomates in the corollas of Stomatantes are of particular interest. They are not as obvious or as numerous in any other genus. Stomates can be difficult to observe but careful checking has demonstrated their presence in only two other genera. In Eupatoriadelphus one or two rather lax stomates occur on each corolla lobe. The south american genus Microconia has a single small stomate in the middle of the back of each corolla lobe. All three of the genera with stomates on the

corolla have hairs on the stylar nodes. The significance of this coincidence is yet to be determined but there are some indications that hairy stylar nodes are primitive in at least some lines in the Eupatorieae.

Stomatanthes presents one very serious problem. The genus Eupatorium which comes closest geographically cannot be an ancestral form. Eupatoriadelphus, which has a few stomates, may be more closely related but is strictly north american. South America offers no likely relatives either. It seems very strange that the species should have no close relatives either in Africa or elsewhere.

Stomatanthes R.M.King and H.Robinson, genus novum Compositarum (Eupatorieae). Plantae perennes herbaceae vel suffrutescentes paucè vel dense ramosae. Folia alterna, raro subopposita, petiolo perbrevis. Inflorescentiae dense corymbosae. Involucri squamae 4 subaequilongae late vel anguste lanceolatae interdum 1-2 extraneae breviores; receptacula glabra. Flores 4-5 in capitulo; corollae tubulares extus abundanter glanduliferae et setiferae, cellulis angustis, parietibus sinuosis, lobis extus manifeste stomatophoris; filamenta antherarum in parte superiore magna, cellulis numerosis plerumque quadratis, parietibus dense reticulate ornatis, cellulis exothecialibus subquadratis vel brevioribus antherarum appendicibus longis; styli inferne dense hirsuti, appendicibus valde papillatis; achaenia prismatica 5-8 costata dense setifera et glandulifera; carpodia distincte rotundata, cellulis parvis quadratis interdum protuberantibus, parietibus potius tenuibus; pappi setiformes valde scabri, cellulis apicalibus subacutis.

Species typica: Eupatorium africanum Oliv. et Hiern.

Chromosome number determined as $x = 10$ (Turner & Lewis, 1965).

Stomatanthes africanus (Oliv. et Hiern.) R.M.King and H. Robinson, comb. nov. Eupatorium africana Oliv. et Hiern. in Oliver, Fl. Trop. Afr. 3:301. 1877. Angola, Congo, Ethiopia, Nyasaland, Tanganyika, Transvaal.

Literature Cited

Turner, B.L., and W.H.Lewis 1965. Chromosome Numbers in the Compositae. IX African Species. Jour. S. Afr. Bot. 31(3):207-217.